

IN THE CLAIMS:

Please cancel Claims 22 and 23 without prejudice and amend Claims 21, 25, 27 and 28, which are re-written in "clean" format.

21. An electrode for an energy storage and conversion device, comprising

a substrate; and

a layer of an active material comprising a metal sulfide, metal selenide, or metal telluride, and having a thickness in the range from about 5 to about 114 microns deposited on the substrate, wherein the active material decomposes or transforms at thermal spray

C2 STATE
MATERIAL
APPROPRIATE
PUTS
BUT NOT
PARTICULAR IT WORKS
SEE EX 1
PRESENT.

25. The electrode of claim 21, wherein the active material is FeS₂, CoS₂, WS₂, NiS₂, or MoS₂.

27. The electrode of claim 21, wherein the active material is microstructured.

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28. The electrode of claim 21, wherein the active material is nanostructured.

Please add the following new claims.

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B2*

41. An electrode for an energy storage and conversion device, comprising a substrate; and a layer of an active material comprising FeS₂, CoS₂, WS₂, NiS₂, MoS₂, metal selenide, or metal telluride, and having a thickness in the range from about 5 to about 114 microns deposited on the substrate, wherein the active material decomposes or transforms at thermal spray temperatures to a material unsuitable for use in an electrode.

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42. The electrode of claim 41, wherein the active material is FeS₂.

43. The electrode of claim 41, wherein the active material is microstructured.

44. The electrode of claim 41, wherein the active material is nanostructured.

45. An electrode for an energy storage and conversion device, comprising
a substrate; and
a layer of an active material having a thickness in the range from about 5 to about 114
microns comprising a metal sulfide, metal selenide, or metal telluride deposited on the
substrate by a thermal spray method comprising providing a feedstock mixture comprising an
effective quantity of a source of elemental sulfur and a metal sulfide, an effective quantity of
a source of elemental selenium and a metal selenide, or an effective quantity of a source of
elemental tellurium and a metal telluride and thermally spraying the feedstock mixture onto
the substrate.

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46. The electrode of claim 45, wherein the active material is a metal sulfide.

47. The electrode of claim 45, wherein the active material is FeS₂, CoS₂, WS₂,
NiS₂, or MoS₂.

48. The electrode of claim 45, wherein the active material is microstructured.

49. The electrode of claim 45, wherein the active material is nanostructured.